

BURST et al., Ser. No. 10/041,558

AMENDMENTS TO THE CLAIMS

1. (currently amended) A process for separating a liquid mixture of at least two components A and B which form an azeotrope with one another, optionally together with further components, which comprises
 - i) distilling the mixture to be separated in the presence of an auxiliary H which with each of the two components A and B forms a binary azeotrope AH ~~or~~ and BH which has a boiling point lower than that of H, and which is additionally able to form a ternary azeotrope with the components A and B, and
 - ii) isolating an A,H-containing fraction which is depleted in B compared to the mixture to be separated and a B,H-containing fraction which is depleted in A compared to the mixture to be separated,

wherein at least part of the auxiliary H is introduced at the top and/or in the upper region of a column for the distillation, i.e. above the point of introduction of the mixture to be separated.
2. (canceled)
3. (currently amended) A process as claimed in claim 1, wherein the mixture to be separated is introduced continuously into a the column for the distillation
4. (canceled)
5. (canceled)
6. (currently amended) A process as claimed in ~~claim 5~~ claim 3, wherein the auxiliary H is obtained as bottom product and is recirculated at least partly to the top and/or into the upper region of the column.
7. (original) A process as claimed in claim 3, wherein the A,H-containing fraction is taken

BURST et al., Ser. No. 10/041,558

off at a point above the feed point for the mixture to be separated and the B,H-containing fraction is taken off at a point below the feed point for the mixture to be separated.

8. (currently amended) A process as claimed in ~~claim 5~~ claim 3, wherein the mass flow of the auxiliary H introduced is from 0.5 to 15 times the mass flow of the mixture to be separated, based on the part different from H.
9. (original) A process as claimed in claim 1, wherein the binary azeotrope AH and/or BH is a heteroazeotrope.
10. (original) A process as claimed in claim 9, wherein the liquid or liquefied A,H-containing and/or B,H-containing fraction is subjected to a phase separation to give an A-rich or B-rich phase and an H-rich phase and the H-rich phase is returned to the column.
11. (currently amended) A process as claimed in claim 1, wherein the ~~mixture to be separated is a mixture comprising a first component A~~ A is selected from among the group consisting of chlorinated hydrocarbons and monocyclic C₆-C₁₀-aromatics and a second the component B is selected from among the group consisting of C₁-C₈-alkanols and the auxiliary H used is water.
12. (original) A process as claimed in claim 11, wherein the chlorinated hydrocarbon is perchloroethylene and the alkanol is n-butanol and the mixture optionally further comprises butyl chloride.
13. (original) A process as claimed in claim 12, wherein the liquefied n-butanol/water fraction is subjected to a phase separation to give an n-butanol-rich phase and a water-rich phase and the n-butanol-rich phase is separated by distillation into a fraction enriched in n-butanol and a fraction depleted in n-butanol.
14. (original) A process as claimed in claim 12, wherein a fraction which comprises butyl

BURST et al., Ser. No. 10/041,558

chloride and water and is largely free of perchloroethylene and *n*-butanol is additionally obtained as lowest-boiling fraction.

15. (original) A process as claimed in claim 11, wherein the auxiliary H further comprises a base.